

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/751,102

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. - 14. (canceled).

15. (new) A process for the application of glue to packaging material transported during the application of glue, namely to individual, prefabricated blanks or to a continuous material web used for the production of blanks for packs, by means of glue nozzles (24) with closeable nozzle openings (25, 26) which are supplied with glue under pressure, namely glue pressure, during a phase of the glue application, the glue pressure acting on the glue being regulatable in accordance with the conveying speed of the packaging material, **characterized by** the following features:

- a) the glue is fed by a glue pump (34) through a glue line (32) under relatively high pressure to a glue assembly equipped with the glue nozzles (24),
- b) the glue pressure in the region of the glue nozzles (24) is regulated by a pressure control element, namely by means of a pressure control valve (37) in the glue line (32),
- c) the pressure control valve (37) is connected by via control lines (40, 41) to a common machine control unit (31) for the purpose of regulating the pressure control valve (37) in accordance with the conveying speed of the packaging machine.

16. (new) The process according to Claim 15, **characterized in that** the glue pressure is adjusted by a PC connected to the machine control unit (31) via a signal line (55) for the purpose

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of accounting for the viscosity of the glue and/or a desired layer thickness of glue areas (16) or glue strips (20) on the packaging material by altering the glue pressure accordingly.

17. (new) The process according to Claim 15, **characterized by** the following features:

- a) the pressure control valve (37) is regulated by compressed air through a control air line (40),
- b) the control air line (40) is connected to a compressed air control unit (38), and
- c) the compressed air control unit (38) is regulated by the machine control unit (31) through a signal line (41).

18. (new): The process according to Claim 15, **characterized in that** different glue regions of the packaging material, namely glue areas (16) on one hand, and, arranged offset to the latter, glue strips, on the other hand, have different layer thicknesses which are regulated by the pressure control valve (37) according to the settings at the machine control unit (31).

19. (new): The process according to Claim 15, **characterized by** the following features:

- a) a glue nozzle (24) having a plurality of nozzle openings (25, 26) is assigned a common pressure control valve (37), and
- b) each nozzle opening (25, 26) is assigned a valve (29, 30) as a shut-off device such that the actual glue pressure as regulated in each case by the pressure control valve (37) is exerted in the region of the open nozzle openings (25, 26).

20. (new): The process according to Claim 15, **characterized in that** the nozzle openings (25, 26) of the glue assembly (23) are assigned individually controllable pressure

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control valves for regulating the glue pressure of individual nozzle openings (25, 26) or groups of nozzle openings (25, 26).

21. (new): The process according to Claim 16, **characterized in that** a plotted course of the glue pressure during a gluing cycle for a blank or a corresponding section of the material web (21) is programmed according to the arrangement of the glue areas (16) or glue strips (20) as a function of the conveying speed of the blanks or the material web and as a function of further parameters, namely the desired layer thickness of the glue and/or the viscosity of the glue by entering the corresponding data in the PC (54) for the production of glue blanks or a glue material web.

22. (new): The process according to Claim 15, **characterized by** the following features.:

- a) the conveying speed of the material web (21) is determined by a scanning device in the region of a draw roller (42) which is assigned to the material web (21) and revolves with the material web (21),
- b) the scanning device is a resolver (43) which detects the rotational movement of the draw roller (42),
- c) the conveying speed of the material web (21) is determined cyclically by measuring a change in the rotation angle of the resolver and calculating a velocity value,
- d) the velocity value is calculated with an algorithm stored in the control unit to arrive at an appropriate pressure value, namely glue pressure.

23. (new): The process according to Claim 16, **characterized by** the following features:

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- a) stored in the machine control unit (31) are control programs for different glue shapes based on the type and/or size of the blanks or the corresponding sections of the material web (21) to be glued,
- b) the control programs are stored as control curves for a gluing cycle, namely as a velocity curve, on one hand, and as a pressure curve, on the other,
- c) the program required in each case is called up from the machine control unit (31) by the PC (54) as determined by the blanks to be produced or the material web (21) to be glued.

24. (new): The process according to Claim 23, **characterized in that** via the machine control unit (31) an additional control program for the timing and duration of opening the nozzle openings (25, 26) is called up, by regulating the valves (29) which are connected to the machine control unit (31) and which are assigned to each nozzle opening (25, 26) or group of nozzle openings (25, 26).

25. (new): The process according to Claim 15, **characterized by** the following features:

- a) for the purpose of producing blanks as the outer wrapper of a bundle pack (10) for cigarettes, glue areas (16) are applied in the region of a edge strip (15) of the blank, namely a plurality of glue areas (16) arranged at a distance from one another in a row running transverse to the conveying direction of the blank or of the material web (21),
- b) afterwards, mutually opposing glue strips (20) pointing in the conveying direction of the material web are applied in the region of cover tabs (18) of the same blank, and

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c) a program for controlling the glue assembly (23) is selected such that the glue areas (16), on one hand, and glue strips (20) on the other hand, differ in layer thickness, namely with glue strips (20) being formed with a greater layer thickness than that of the glue areas (16).